DEPT. OF ELECTRONICS & TELECOMMUNICATION ENGINEERING
GOVERNMENT POLYTECHNIC, BALASORE
QUESTION BANK
ON
TH3 - MICROPROCESSOR & MICROCONTROLLER
SEMESTER & BRANCH : – 4TH SEM, E & TC ENGINEERING

SHORT QUESTIONS

1. 1. What is microprocessor? Give an example.
2. Write the flag register of 8085.
3. What are the operations performed by ALU?
4. What is the function of program counter in 8085 μp?
5. What is bus and what are the different buses in 8085 microprocessor?
6. What is difference between the two instruction MOV and MVI?
7. Give two examples of 1-byte, 2-byte and 3-byte instruction.
8. What are the function of DAA instruction?
9. Which instructions are used for the operation of stack and subroutine?
10. Define Opcode and Operand.
11. What is an instruction cycle?
12. What is machine cycle?
13. What is interfacing?
14. Why interfacing is required in microprocessor?
15. What do you mean by DMA techniques? Which pins of 8085 belongs to this group?
16. Write the name of different modes of 8255.
17. What is USART? Why it is used?
18. What are the different methods of interfacing of I/O devices to 8085 based system?
19. Give any two specification of D/A converter.
20. What are the different flags available in status register of 8086?
21. What are the modes in which 8086 can operate?
22. What are the different types of addressing modes of 8086 instruction set?
23. What are the different types of instructions in 8086 microprocessor?
24. What is the function of BIU?
25. What is the function of EU?
26. Write two difference between microcontroller and microprocessor.
27. Name the special function registers available in 8051.
28. How many bit addressable location are placed in internal RAM?
29. Mention any two example of direct addressing instruction.
30. What are the various ports available in 8051?

LONG QUESTIONS

1. Write two difference between microcontroller and microprocessor.
2. Name the special function registers available in 8051.
3. How many bit addressable location are placed in internal RAM?
4. Mention any two example of direct addressing instruction.
5. What are the various ports available in 8051?
6. Draw the pin diagram of 8085 microprocessor and explain function of each pin.
7. With a neat block diagram explain the architecture of 8085 microprocessor explain function of each block.
8. Explain the different addressing modes of 8085 with example.
9. Explain the CALL instruction.
10. Explain briefly the sub routine.
11. What are the difference between assembly language and high level languages?
12. Write an assembly language program to sum of two 8-bit numbers whose sum is 16-bit using 8085 instruction sets.
13. What is time delay? Calculate the maximum time delay for one and two registers.
14. Write an assembly language program to find out subtraction of two 8-bit using 8085 instruction.
15. Draw the timing diagram of memory read operation of 8085 microprocessor.
16. Draw the timing diagram of memory write operationof 8085 microprocessor.
17. Draw the timing diagram of I/O read operationof 8085 microprocessor.
18. Draw the timing diagram of I/O write operationof 8085 microprocessor.
19. Draw the timing diagram of MOV A, M instruction of 8085 microprocessor with neat sketch.
20. Differentiate between memory mapping and I/O mapping with their applications.
21. Explain the principle of operation of ADC 0801 interfacing with example.
22. Explain the functional block diagram of 8255 and explain each block.
23. Describe the operation of DAC 0808 with interfacing to 8085 microprocessor.
24. Draw the interfacing diagram of ADC 0808 with 8085 microprocessor.
25. Discuss the register organization of 8086.Explain the function of each register.
26. Explain different addressing modes of 8086 with example.
27. Draw and explain different bits of flag registers of 8086 microprocessor.
28. Explain the minimum and maximum modes of 8086?
29. Draw the functional block diagram of internal architecture of 8086 microprocessor and explain the function of each block.
30. Draw the pin diagram of 8086 microprocessor and describe the function of each pin.
31. Explain the various flags in the PSW register of microcontroller.
32. Explain the function pin diagram of 8051 microcontroller.
33. What are addressing modes of 8051? Explain in brief.
34. Draw the memory organization of 8051.
35. Explain the architecture of 8051 with a neat diagram